

CLAIMS

What is claimed is:

1. In an intraoperative ultrasound probe for insertion into a patient, the intraoperative ultrasound probe having a handle section and a transducer section, the transducer section including a transducer, an improvement comprising:
an adaptable section between the handle section and the transducer section.
2. The probe of Claim 1 wherein the adaptable section is operable to rotate the transducer section relative to the handle section.
3. The probe of Claim 1 wherein the adaptable section is operable to maintain a plurality of positions of the transducer section relative to the handle section.
4. The probe of Claim 1 wherein the adaptable section comprises a memoryless bendable section.
5. The probe of Claim 1 wherein the adaptable section comprises a metal shaft.
6. The probe of Claim 5 wherein the metal shaft comprises aluminum wire.
7. The probe of Claim 1 wherein the adaptable section comprises a ball joint.
8. The probe of Claim 7 further comprising a tensioned wire connected with the transducer section and the handle section through the ball joint.
9. The probe of Claim 1 wherein the adaptable section comprises a latch.

10. The probe of Claim 9 wherein the latch comprises a notched portion connected with one of the handle and transducer sections and a pawl connected with a different one of the handle and transducer sections.

5 11. An intraoperative or endocavity ultrasound probe for insertion into a cavity or surgical incision of a patient, the probe comprising:

a transducer housing;

a handle housing; and

an adjustable section joining the transducer housing to the handle housing, the adjustable section having a flexible covering and a device to maintain an adjusted position without steering wires.

10 12. The probe of Claim 11 wherein the adjustable section is operable to rotate the transducer housing relative to the handle housing.

13. The probe of Claim 11 wherein the adjustable section is operable to maintain a plurality of positions of the transducer housing relative to the handle housing without user control while in the cavity or surgical incision.

14. The probe of Claim 11 wherein the adjustable section comprises a memoryless bendable section.

15. The probe of Claim 11 wherein the device comprises a metal shaft.

20 16. The probe of Claim 11 wherein the device comprises a ball joint and a tensioned wire connected with the transducer housing and the handle housing through the ball joint.

25 17. The probe of Claim 11 wherein the adjustable section comprises latch having a notched portion connected with one of the handle and transducer housings and a pawl connected with a different one of the handle and transducer housings.

18. The probe of Claim 11 wherein the flexible covering comprises a silicone based elastomer.

19. A method for using an intraoperative or endocavity ultrasound probe, the method comprising the acts of:

- 5 (a) inserting the probe into a cavity of a patient;
- (b) rotating a first axis of a transducer housing relative to second axis of a handle housing prior to (a); and
- (c) maintaining a relative position of the first and second axes during (a).

20. The method of Claim 19 wherein (c) comprises maintaining one or a plurality of possible relative positions.

21. The method of Claim 19 wherein (b) comprises rotating in a pitch angle of the first axis to the second axis.

22. The method of Claim 19 wherein (b) and (c) comprise bending a metal shaft.

23. The method of Claim 19 wherein (b) and (c) comprises adjusting a ball joint having a tensioned wire connected with the transducer housing and the handle housing through the ball joint.

24. The method of Claim 19 wherein (b) and (c) comprise adjusting a latch having a notched portion connected with one of the handle and transducer housings and a pawl connected with a different one of the handle and transducer housings.

25. The method of Claim 19 further comprising:

(d) increasing the malleability of the probe in response to an external force prior to (b).

26. The probe of Claim 1 wherein the adaptable section comprises a material more malleable in response to external force than absent the external force.